

REMARKS

At the outset, the Examiner is thanked for the thorough review and consideration of the pending application. The Final Office Action dated July 12, 2010 has been received and its contents carefully reviewed.

Claims 1 and 5 are hereby amended. Support for the amendment can be found, for example, *Specification*, page 5, line 8 to page 11, line 11. Accordingly, claims 1, 4-13 are currently pending, of which claim 4 is withdrawn from consideration. Reexamination and reconsideration of the pending claims are respectfully requested.

The Office Action rejects claims 1 and 5-13 under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. Applicants respectfully traverse the rejection.

Specification provides detailed description on how to practice different embodiments of the present invention. See, *Specification*, page 5, line 8, to page 11, line 11. Specification further cites two patent literatures and seven non-patent literatures in the Background Art section. Disclosure of the present application in combination with the two patent literatures and seven non-patent literatures enables one ordinary skill in the art to practice different embodiments of the present invention without undue experimentations. Furthermore, to advance prosecution, Applicants also have amended independent claims 1 and 5. Applicants submit that claims 1 and 5 and their dependent claims comply with the enablement requirement. Applicants therefore respectfully request withdrawal of the rejection of claims 1 and 5-13.

The Office Action rejects claims 1 and 5 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 3,266,940 to Caesar (*Caesar*). Applicants respectfully traverse the rejection.

As required in M.P.E.P. § 2131, in order to anticipate a claim under 35 U.S.C. § 102, “the reference must teach every element of the claim.” *Caesar* fails to teach all the elements of claims 1 and 5, and thus cannot anticipate these claims.

Claims 1 and 5 both recite “a density of the layered silicate minerals is controlled in a range of 1.0 to 1.8 Mg/m³” and “the layered silicate minerals are at least one selected from the group consisting of montmorillonite, beidellite, illite, and sericite.” *Caesar* fails to teach at least these elements of claims 1 and 5. Accordingly, claims 1 and 5 are allowable over *Caesar*. Applicants therefore respectfully request withdrawal of the 35 U.S.C. §102(b) rejection of claims 1 and 5.

The Office Action rejects claims 1 and 5 under 35 U.S.C. §102(b) as being anticipated by WO 93/08613 to Krumpelt (*Krumpelt*). Applicants respectfully traverse the rejection.

Claims 1 and 5 both recite “a density of the layered silicate minerals is controlled in a range of 1.0 to 1.8 Mg/m³” and “the layered silicate minerals are at least one selected from the group consisting of montmorillonite, beidellite, illite, and sericite.” *Krumpelt* fails to teach at least these elements of claims 1 and 5. Accordingly, claims 1 and 5 are allowable over *Krumpelt*. Applicants therefore respectfully request withdrawal of the 35 U.S.C. §102(b) rejection of claims 1 and 5.

The Office Action rejects claims 6-13 under 35 U.S.C. §103(a) as being unpatentable over *Caesar*. Applicants respectfully traverse the rejection.

Claims 6-13 variously depend from claim 5, and incorporate all the elements of claim 5. As discussed, *Caesar* fails to teach at least the above-recited elements of claim 5, namely, “a density of the layered silicate minerals is controlled in a range of 1.0 to 1.8 Mg/m³” and “the layered silicate minerals are at least one selected from the group consisting of montmorillonite, beidellite, illite, and sericite.” Accordingly, claims 6-13 are allowable over *Caesar* for at least the same reasons as claim 1. Applicants therefore respectfully request withdrawal of the 35 U.S.C. §103(a) rejection of claims 6-13.

The Office Action rejects claims 6-13 under 35 U.S.C. §103(a) as being unpatentable over *Krumpelt* in view of U.S. Patent No. 4,505,992 to Dettling (*Dettling*). Applicants respectfully traverse the rejection.

Claims 6-13 variously depend from claim 5, and incorporate all the elements of claim 5. As discussed, *Krumpelt* fails to teach at least the above-recited elements of claim 5, namely, “a density of the layered silicate minerals is controlled in a range of 1.0 to 1.8 Mg/m³” and “the layered silicate minerals are at least one selected from the group consisting of montmorillonite, beidellite, illite, and sericite.” *Detting* does not cure the deficiency of *Krumpelt* with respect to claim 5. The Office Action cites *Detting* for disclosing anode, cathode, and water separator plate. *Office Action*, page 6. *Detting* is also silent with respect to the above-recited elements of claim 5. Accordingly, claim 5 and its dependent claims 6-13 are allowable over the combined teaching of *Krumpelt* and *Detting*. Applicants therefore respectfully request withdrawal of the 35 U.S.C. §103(a) rejection of claims 6-13.

The application is in condition for allowance and early, favorable action is respectfully solicited. If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. §1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911.

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Respectfully submitted,

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